

**P a t e n t   C l a i m s :**

1. A process for the production of a polyurethane binder from a mixture of an alcohol component, an isocyanate component and a catalyst,  
5 CHARACTERIZED in that the alcohol and isocyanate components in a predetermined weight ratio are mixed at the site of use with a catalyst in an amount which is determined by the desired open time of the binder.
2. A process according to claim 1, CHARACTERIZED in that the alcohol  
10 component comprises castor oil.
3. A process according to claim 2, CHARACTERIZED in that the alcohol component also comprises a polyol.
- 15 4. A process according to any of the preceding claims, CHARACTERIZED in that the isocyanate component is diphenylmethane-4,4'-diisocyanate and/or diphenylmethane-2,4'-diisocyanate.
5. A process according to any of the preceding claims, CHARACTERIZED in  
20 that the catalyst is a tertiary amine.
6. A process according to any of claims 1-4, CHARACTERIZED in that the catalyst is an organo-metallic compound.
- 25 7. A process according to claim 6, CHARACTERIZED in that the organo-metallic compound is a tin compound.
8. A process according to any of claims 5-7, CHARACTERIZED in that the catalyst comprises both a tertiary amine and an organo-metallic compound.  
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9. A process according to any of the preceding claims, CHARACTERIZED in that the catalyst is mixed with part of the alcohol and/or the isocyanate and

that the mixture thus obtained is subsequently mixed with the remaining part of the alcohol and/or isocyanate.

10. An apparatus for the preparation of a binder comprising a mixture of an alcohol component, an isocyanate component and a catalyst, CHARACTERIZED in that it comprises means for dosing the alcohol and isocyanate components, in a predetermined weight ratio, means for dosing varying amounts of catalyst and means for mixing the dosed components.
11. An apparatus according to claim 10, CHARACTERIZED in that the means for dosing the alcohol and isocyanate components comprises two axially aligned cylinder pumps having a common piston rod, that the means for dosing the catalyst is a third cylinder pump, having a piston rod which is connected with the common piston rod of the axially aligned pumps via an adjustable lever mechanism allowing the movement of the piston rod of the third cylinder pump to be varied relative to the movement of the common piston rod.